

Mr. Thompson's drawings and these specimens is certainly very great, though the anterior end in mine is rather more closed than in his, by the bending over of the edges through which the tentacles of the two sides have become entangled together. None of the markings are so strong as in the figures, the transverse markings on the broad flat sides being scarcely perceptible in any of the specimens, and the striæ on the flattened edges not extending in general very far from the posterior end, where they are in some specimens tolerably strong and extend over the inner edge of the rim as shown in the figure. The dimensions in length, at least of my specimens, were all less than those of Mr. Thompson, viz.

Extreme length .....	4 inches.
Width .....	1½ "
Thickness rather more than .....	¼ "

The colour when fresh was a pale horn as usual, but becomes brown by keeping.

As regards the period of protrusion, from May when I procured my first specimens until the end of November and beginning of December the fish became scarce, when they again appeared in the market, and on the 27th of December I procured some fresh eggs, one pair of which was said to have been taken from a large female then lying opened before me. Others I saw subsequently, and in one I observed the ovaries to contain eggs still in a soft state and without their covering; this was a large specimen, measuring 28 inches. There can therefore be no doubt that the eggs of these fishes are protruded at least at two periods of the year.

### XXXVII.—*Note on Euplocamus, Triopa and Idalia.*

By JOSHUA ALDER, Esq.

IN the second volume of the 'Enumeratio Molluscorum Siciliae,' Dr. Philippi under the head of *Idalia* (to which he now refers his genus *Euplocamus*) makes some strictures upon a notice that appeared in this Journal (vol. vi. p. 217) from Professor E. Forbes, stating that the lateral appendages of *Euplocamus* of Philippi (*Triopa* of Johnston) had no vibratile cilia, and consequently were not branchial. The same notice also stated that the lateral appendages of *Tritonia* and *Eolis* were ciliated, but the branchial appendages of *Polycera* were not so.

To these observations Dr. Philippi makes several objections. In the first place, after asking on what species of *Euplocamus* the observations were made, he says that a mere inspection of the figure of his *E. croceus*, without any microscopic disquisition, will show that the lateral appendages serve the office of respiration, and from this species, he adds, the transition is evident to

*E. lacinosus*. Upon this I would remark, that the function here attributed to the lateral appendages of *E. croceus* is probably correct, yet not so self-evident but that it would be desirable to bring them to the test of the microscope,—a mode of investigation which this distinguished naturalist appears to hold in slight esteem. With regard to the latter part of the observation, which implies that if the appendages of *E. croceus* are branchial those of *E. (Idalia) lacinosus* are so also, I cannot assent to it. Indeed Dr. Philippi would appear to have some doubts upon the point, for, referring to his descriptions, I find that these processes are called “*branchiæ*” in *E. croceus* and *E. ramosus*; in *I. cinigera* “*branchiæ?*” (with a query); and in *I. laciniosa* they are simply called “*cirrho*,” the term *branchiæ* being properly reserved for those processes surrounding the vent.

The animal examined by Professor Forbes was not one of the Sicilian species, but the only British species referred to the genus by Dr. Philippi (and which is also the type of Dr. Johnston’s genus *Triopa*), viz. *Doris clavigera* of Müller.

Dr. Philippi next asks, whether it is a fact that all the organs serving for respiration are furnished with vibratile cilia, and says he can scarcely believe that the *branchiæ* of *Eolis* are ciliated, because they appear not to differ in anything from the lateral appendages of *Euplocamus*. It is unfortunate that the learned author has not been in the habit of using a microscope in the examination of these animals, as, had he done so, he could immediately have satisfied himself of the fact, and thus have avoided the disadvantage of offering an opinion in opposition to the testimony from observation not only of Professor Forbes, but of several other naturalists who have lately written on the subject.

To the question, whether the branchial organs are always ciliated, the concurring observations of anatomists will, I think, justify a reply in the affirmative; at least I am not aware of any case to the contrary. The absence of vibratile cilia therefore may be taken as a fair presumption that an organ is not adapted for respiration. Their presence however does not always imply that function, as several other delicate tissues in the animal œconomy, especially when currents are required, are well known to be ciliated.

The next question asked by Dr. Philippi is, whether the genus *Triopa* is really the same as his *Euplocamus*; and he infers from an observation of mine that “*Triopa Nothus* of Johnston is probably a *Polycera*,” that *Triopa* and *Polycera* are the same, and as *Polycera* is different from *Euplocamus*, we must have very lax notions of what constitutes a genus. “*Cum iis, qui tales differentias ad distinctionem generum non valere putant, litem habere nolo; sed iis adsentire non possum.*”

These conclusions are founded upon imperfect and erroneous data that might have been avoided by consulting the papers on Scottish Nudibranchiata in the first volume of this Journal. Dr. Johnston there institutes the genus *Triopa* for the *Doris clavigera* of Müller, but while taking this species for his type he acknowledges that he has characterized the genus rather loosely on purpose to include in it another animal not very perfectly understood, which I have since suggested may be the young of a *Polycera*. Now from this circumstance it does not necessarily follow that *Triopa clavigera* is also a *Polycera*. In calling the latter species an *Euplocamus*, Professor Forbes followed the opinion of Dr. Philippi himself, who in describing the genus (Enum. Moll. Siciliæ, vol. i. p. 104) says, "Altera hujus generis species est *Doris clavigera*, O. Fr. Müller, Zool. Danica," thus referring to his genus a species without lateral branchiæ; and he has since united this genus with *Idalia*, Leuck., in which lateral branchiæ are also wanting.

If, as Dr. Philippi states, and I am inclined to believe, the typical *Euplocami* have lateral branchiæ, it is an interesting circumstance, as it will be the only genus in which the two kinds of branchiæ are known to exist in the same animal.

On this view of the subject, I should propose that the genus *Euplocamus* be retained for *E. croceus* and *E. ramosus*, and that *Doris clavigera*, Müll., be considered the type of the genus *Triopa*, to which may perhaps be added *Doris fimbriata* and *D. lacera* of the same author.

*Idalia cerrhigera* and *I. laciniosa* are very properly placed in the genus of Leuckart.

### XXXVIII.—On the Occurrence of *Phytozoa* in *Phanerogamous Plants*. By Dr. A. GRISEBACH\*.

THE observation recently published by Nägeli, that the tailed globules which occur in the antheridia of mosses are likewise found in organs possessing a similar structure on the germ-leaf of ferns, excited my interest, the more so as in this case it is requisite to abstract these globules entirely from any connexion with the production of spores or with any process analogous to impregnation in animals. I examined these organs first on a germinating *Adiantum concinnum*, Kth., and had occasion to confirm Nägeli's discovery in every essential point. I will here mention the remarkable phænomenon, that in *Adiantum* these organs, which, to prevent any comparison with the anthers, I have called *Corynidia*,

\* From the Botanische Zeitung, Sept. 20, 1844. Translated by W. Francis, F.L.S.